



1 IN THE CLAIMS

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3 Applicant amends the Claims as follows:

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5 5. (Twice Amended) A selectable waveguide having a first position  
6 and a second position for respectively communicating first or  
7 second signals from an antenna feed to respective first and second  
8 probes, the selectable waveguide comprising,

9 an antenna feed port coupled to the antenna feed for  
10 communicating the signals between the antenna feed and the first  
11 and second probes,

12 a first waveguide section having a first shape and a first  
13 cross-section for coupling to the antenna feed port for  
14 communicating the first signal, the first shape is straight,

15 a first port for coupling the first probe to the first  
16 waveguide section for communicating the first signal between the  
17 first probe and the first waveguide section,

18 a second waveguide section having a second shape and a second  
19 cross-section for coupling to the antenna feed port for  
20 communicating the second signal, the second shape is bent at ninety  
21 degrees with a forty-five degree reflective surface,

22 a second port for coupling the second probe to the second  
23 waveguide section for communicating the second signal between the  
24 second probe and the second waveguide section, [the first and the  
25 second shapes are selected from the group consisting of straight  
26 and bent at ninety degrees with a forty-five degree reflective  
27 surface,] the first and second cross sections are selected from the  
28 group consisting of square and circular, the first and second



1 shapes and the first and second waveguide cross sections enable concurrent  
2 isolated communications of the first and second signals through  
3 either one of the first and second waveguide sections when the  
4 first and second signals are orthogonally polarized respecting each  
5 other, and

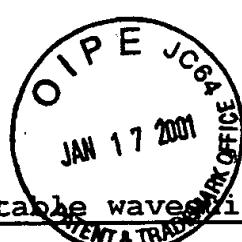
6 an element for supporting the first and second waveguide  
7 sections, the element having a first position for communicating the  
8 first signal between the antenna feed port through the first  
9 waveguide section to the first port, the element having a second  
10 position for communicating the second signal between the antenna  
11 feed port through the second waveguide section to the second port.

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16 6. (Twice Amended) The selectable waveguide of claim 2800 wherein,  
17 the element is a rotating element,  
18 the first signal is a first polarized signal,  
19 ~~red~~ the first waveguide shape is straight,  
20 the second signal is a second polarized signal,  
21 ~~red~~ the second waveguide shape is bent at ninety degrees having a  
22 forty-five degree reflective surface, and  
23 the selectable waveguide is for selecting the communication [g]  
24 of either the first or second polarized signals, wherein the first  
25 and second polarized signals being orthogonal [respecting] with  
26 respect to each other.

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1 8. (Twice Amended) A selectable waveguide having a first position  
2 and a second position for respectively communicating first or  
3 second signals from an antenna feed to respective first and second  
4 probes, the selectable waveguide comprising,  
5 an antenna feed port coupled to the antenna feed for  
6 communicating the signals between the antenna feed and the first  
7 and second probes,  
8 a first waveguide section having a first shape and a first  
9 cross-section for coupling to the antenna feed port for  
10 communicating the first signal, the first shape <sup>being</sup> is straight,  
11 a first port for coupling the first probe to the first  
12 waveguide section for communicating the first signal between the  
13 first probe and the first waveguide section,  
14 a second waveguide section having a second shape and a second  
15 cross-section for coupling to the antenna feed port for  
16 communicating the second signal, the second shape <sup>having a bend of</sup> is bent at <sup>ninety</sup> degrees with a forty-five degree reflective surface,  
17 a second port for coupling the second probe to the second  
18 waveguide section for communicating the second signal between the  
19 second probe and the second waveguide section, the first and second  
20 cross sections are selected from the group consisting of square and  
21 circular, the first and second shapes and the first and second  
22 cross sections enable concurrent isolated communications of the  
23 first and second signals through either one of the first and second  
24 waveguide sections when the first and second signals are  
25 orthogonally polarized respecting each other, and  
26 an element for supporting the first and second waveguide  
27 sections, the element having a first position for communicating the



1 first signal between the antenna feed port through the first  
2 waveguide section to the first port, the element having a second  
3 position for communicating the second signal between the antenna  
4 feed port through the second waveguide section to the second port,

5 [The selectable waveguide of claim 5] wherein: ,

6 the second signal comprises a high frequency signal and a low  
7 frequency signal[,];

8 the reflective surface is a frequency selective reflective  
9 surface for reflecting the low frequency signal to the second port  
10 and for passing the high frequency signal to the first port[,]; and

11 the second waveguide section comprises a waveguide extension  
12 extending from the frequency selective reflective surface and the  
13 first port for communicating the high frequency signal to the first  
14 probe through the first port when the selectable waveguide is in  
15 the second position.

16

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18 9. (Twice Amended) A selectable waveguide arrangement for  
19 respectively communicating first, second or third signals from an  
20 antenna feed to respective first, second and third probes, the  
21 selectable waveguide arrangement comprising a front end selectable  
22 waveguide and a back end selectable waveguide, wherein,

23 the front end selectable waveguide comprises:

24 an antenna feed port coupled to the antenna feed for  
25 communicating the first, second and third signals between the  
26 antenna feed and the first, second and third probes, respectively;

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1 a first front end waveguide section having a first front end  
2 shape for coupling to the antenna feed port for communicating the  
3 second and third signals;

4 a first front end port for coupling to the back end selectable  
5 waveguide for communicating the second and third signals between  
6 the antenna feed port and the back end selectable waveguide;

7 a second front end waveguide section having a second front end  
8 shape for coupling to the antenna feed port for communicating the  
9 first signal;

10 a second front end port for coupling the first probe to the  
11 second front end waveguide section for communicating the first  
12 signal between the antenna feed port and the first probe through  
13 the second front end waveguide section; and

14 a front end element for supporting the first front end  
15 waveguide section and the second front end waveguide section, the  
16 front end element has a first front end position for communicating  
17 the second and third signals between the antenna feed port through  
18 the first front end waveguide section through the first front end  
19 port to the back end selectable waveguide, the front end element  
20 has a second front end position for communicating the first signal  
21 between the antenna feed port through the second front end  
22 waveguide section through the second front end port to the first  
23 probe, and wherein,

24 the back end selectable waveguide comprises:

25 a back end input port coupled to the first front end port for  
26 communicating the second and third signals between the first front  
27 end port respectively to the second and third probes;



1 a first back end waveguide section having a first back end  
2 shape for coupling to the back end input port for communicating the  
3 second and third signals;

4 a first back end port for coupling to the first back end  
5 waveguide section for communicating the third signal between the  
6 back end input port and the third probe through the first back end  
7 waveguide section;

8 a second back end waveguide section having a second back end  
9 shape for coupling to the back end input port for communicating the  
10 second signal;

11 a second back end port for coupling the second back end  
12 waveguide section to the second probe for communicating the second  
13 signal between the back end input port and the second probe through  
14 the second back end waveguide section; and

15 a back end element for supporting the first back end waveguide  
16 section and the second back end waveguide section, the back end  
17 element has a first back end position for communicating the third  
18 signal between the back end input port through the first back end  
19 waveguide section through the first back end port to the third  
20 probe, the back end element has a second back end position for  
21 communicating the second signal between the back end input port  
22 through the second back end waveguide section through the second  
23 back end port to the second probe, one of the first and second  
24 <sup>being</sup> <sub>front end shapes</sub> <sup>of said first and second</sup> <sub>is straight and the other is bent at</sub> <sup>is bent at</sup> <sub>ninety</sub>  
25 degrees, one of the third and forth back end shapes <sup>is straight and</sup> <sub>is bent at</sub> <sup>ninety</sup>  
26 the other <sup>is bent at</sup> <sub>ninety</sub> <sup>degrees, the first, second, third and</sup> <sub>fourth</sub>  
27 <sup>U</sup> <sup>A</sup> <sub>fourth</sub> <sup>waveguide sections have cross sections selected from the</sup>  
28 group of square and circular.